BAR CODE MEDICATION ADMINISTRATION (BCMA)

TECHNICAL MANUAL/SECURITY GUIDE

Version 2.0
May 2002

(Revised March 2003)

Department of Veterans Affairs
V*IST***A** System Design & Development

Revision History

The table below lists changes made since the initial release of this manual. Use the Change Pages document to update an existing manual, or use the entire updated manual.

Note: The Change Pages document may include unedited pages needed for two-sided copying. Only edited pages display the patch number and revision date in the page footer.

Date	Revised Pages	Patch Number	Description
03/03	Title Page, i, iii, 9, 11, 19, 27	PSB*2*20	– Updated the Title Page and this Revision History Page. (p. i) – Updated the Table of Contents to include the new site parameter, "Patient Transfer Notification Timeframe." (p. iii) – Updated the Parameters Tab bulleted list and the "BCMA Site Parameters Main Screen with Parameters Tab Selected" example to include the new site parameter, "Patient Transfer Notification Timeframe" under the Misc Options area. The example also reflects the removal of the "General System Error" and "Auto Update Notification" site parameters under the Mail Groups area, and the "UNC of Auto Update Server" site parameter under the Misc Options area. (p. 9) – Added an explanation about the new site parameter, "Patient Transfer Notification Timeframe." (p. 11) – In the first paragraph, changed the number of Mail Groups from four to two, and removed the phrase "Auto Update changes to PCs." Also, removed the "General System Error" and "Auto Update Notification" information from the section "Mail Group Types in BCMA V. 2.0" since these site parameters were removed from the Parameters Tab of the GUI BCMA Site Parameters application. (p. 19) – In the Glossary, added the definition for Patient Transfer Notification, and updated the PSB STUDENT definition to specify that a "nursing instructor," not just a nurse, must sign on for a nursing student to access BCMA V. 2.0. (p. 27)
02/03	Title Page, i, 6, 7	PSB*2*8	– Updated the Title Page and this page. – Updated the Intranet address for the VistA Documentation Library (VDL). – Increased the total number of routines for BCMA V. 2.0 to equal 52. – Changed the "BCMA V. 2.0 Routines Installed on to **V*IST*A** Server" example to reflect the inclusion of routine PSBRPC3 to the **V*IST*A** Server.
02/03	29-32	PSB*2*6	– Updated the Title Page, the Table of Contents, and this page. – Added Appendix A to this guide, which describes how BCMA V. 2.0 processes schedule information from Inpatient Medications V. 5.0.
08/02	Title Page, i, 6, 7	PSB*2*1	– Updated the Title Page and included this Revision History Page. – Renumbered the pages with Roman numerals to include this page. – Decreased the total number of routines for BCMA V. 2.0 to equal 51. – Changed the "BCMA V. 2.0 Routines Installed on to **V*IST*A** Server" example to reflect the deletion of routine PSB0000 from the **V*IST*A** Server.
05/02			Original Released Technical Manual/Security Guide

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New Site Parameters in BCMA V. 2.0

TIP:

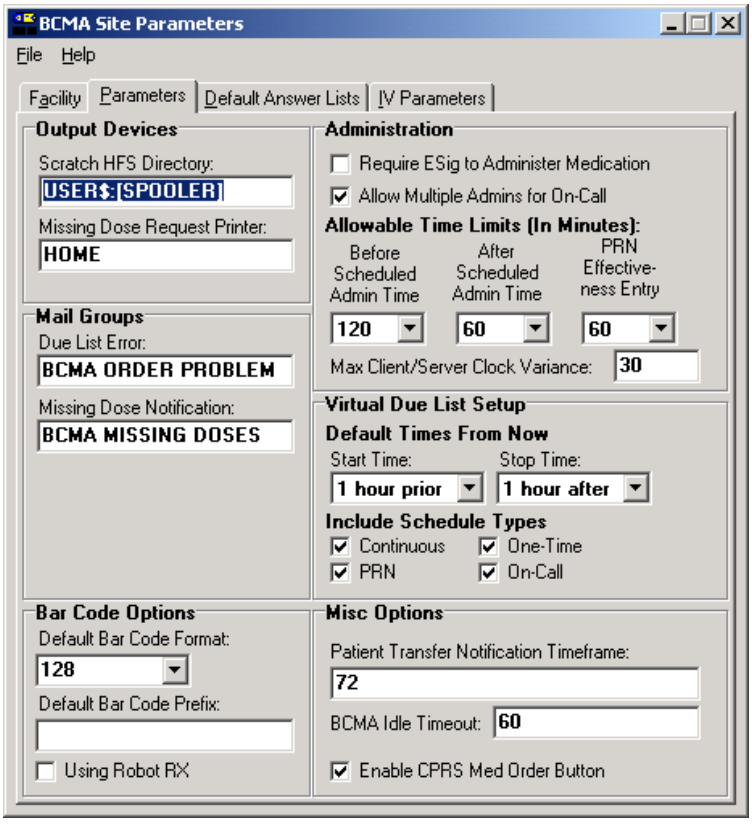
You can define the new BCMA V. 2.0 parameters using the GUI BCMA Site Parameters application.

BCMA V. 2.0 includes three new site parameters: Patient Transfer Notification Timeframe, BCMA Idle Timeout, and Enable CPRS Med Order Button on the Parameters Tab, and the IV Parameters Tab for defining IV Functionality for your division. Each new site parameter is described in this section.

- **Parameters Tab:** The Misc Options area of this Tab includes the Patient Transfer Notification Timeframe field, BCMA Idle Timeout field, and the Enable CPRS Med Order Button check box
- **IV Parameters Tab:** Includes fields for defining IV functionality for your division

Note: After you enter your Access and Verify codes, and division number, using the GUI BCMA Site Parameters application, the BCMA Site Parameters Main Screen displays. An example of the screen is provided below.

Example: BCMA Site Parameters Main Screen with Parameters Tab Selected



New Site Parameters in BCMA V. 2.0 (cont.)

BCMA Idle Timeout

The "BCMA Idle Timeout" site parameter lets you define the number of minutes that an idle BCMA session can stay open. Once the allowable time-out has been reached, BCMA V. 2.0 will close. If the BCMA session displays a prompt, it will *not* time-out until the prompt is answered. The allowable entry for this parameter is 1 to 1440 minutes/day. The default is 30 minutes.

CPRS Med Order Link ("Hot Button")

The "Enable CPRS Med Order Button" site parameter lets you enable or disable the Med Order Button on the BCMA VDL for your division. It provides a link to the Computerized Patient Record System (CPRS) for clinicians to electronically order, document, review, and sign verbal- and phone-type STAT and NOW (One-Time) medication orders that have been administered to patients. This feature is particularly useful in Intensive Care Units (ICU) type environments, as it helps to streamline the workflow in such a busy setting. Clinicians can access this functionality only if they hold the PSB CPRS MED BUTTON security key.

When a clinician clicks the CPRS Med Order Button on the BCMA VDL, medications are then ordered and signed using the BCMA Order Manager and CPRS Order dialog boxes. These orders are then passed to the Inpatient Medications V. 5.0 software application as "nurse-verified" expired orders with a Priority of "Done." A Pharmacist must still verify these order types. The Provider selected during the Ordering process will receive an "alert," requesting their electronic signature on the order.

BCMA V. 2.0 documents these order types as administered to the patient in the BCMA Medication Log Report and the MAH Report. You can also use the Reports Tab in CPRS to verify that these orders were properly documented.

On the Medication Log, the text titled "BCMA/CPRS Interface Entry," displays opposite the order. You can edit these orders using the *Edit Medication Log* [PSB MED LOG EDIT] option in the CHUI version of BCMA V. 2.0.

New Site Parameters in BCMA V. 2.0 (cont.)

Patient Transfer Notification Timeframe

The "Patient Transfer Notification Timeframe" site parameter lets you define the number of hours, before the current system time, that a patient movement must be less than for the movement type (usually a transfer) to display on the BCMA VDL. The allowable entry for this parameter is a minimum value of 2 and a maximum value of 99. The default is 72 hours.

Note: This parameter is defined by division. Individual client settings are not allowed.

IV Functionality

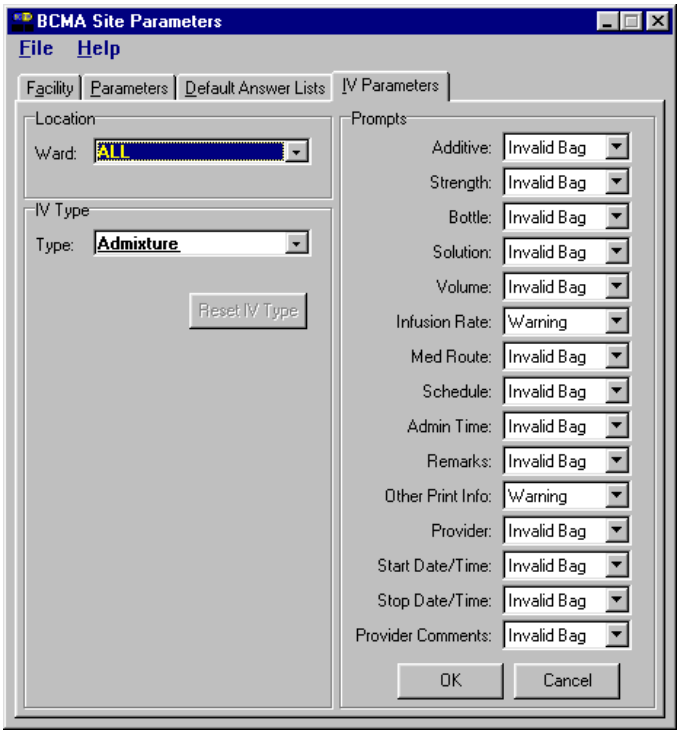
The IV Parameters Tab lets you configure the IV business logic that BCMA V. 2.0 will use when processing an IV medication order that has been edited with the Inpatient Medications V. 5.0 package. You can configure this option using the following hierarchy: Division and Ward.

When BCMA V. 2.0 is first installed, it automatically sets up the recommended default settings for the division and all IV types.

TIP:

Although the default settings for the IV functionality are highly recommended by the BCMA Workgroup, you can still change them for your medical center.

Example: IV Parameters Main Screen



New Site Parameters in BCMA V. 2.0 (cont.)

TIP:

If you later determine that you need to use the default settings for "ALL," simply select the ward in the Ward drop-down list box, then click the **RESET IV TYPE** button. A Warning message will display, informing you that the system will revert to the default Division (ALL) settings.

TIP:

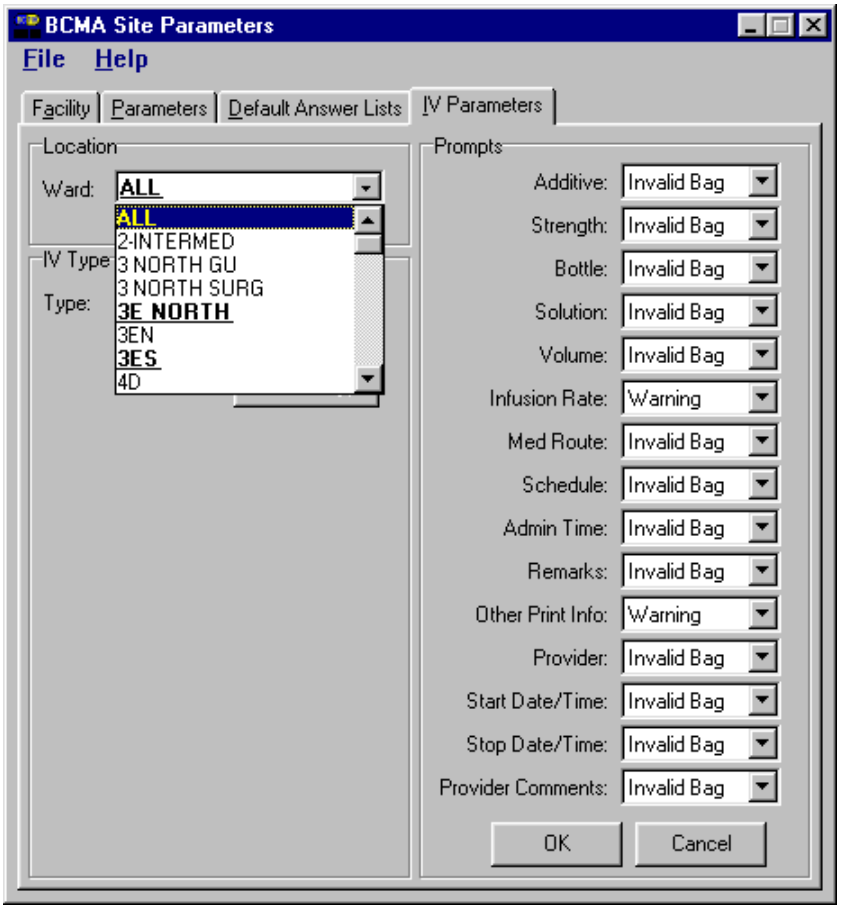
In the Example provided, the Reset IV Type button is located below the Type list box.

IV Functionality (cont.)

➢ Location Area

- **"Ward"** field lets you configure the IV parameter by division (ALL) or by an individual ward. "ALL" is the default setting for a division. This setting includes all wards.
  - ➢ A ward provided in **boldface**, in the list box, indicates that an IV parameter has been set up.
  - ➢ You may change the configuration on an individual ward basis by selecting a ward from the Ward drop-down list box, then making selections from the Prompts section, and then clicking **OK** to accept the changes.

Example: Ward Drop-Down List Box for Location Area



Defining Mail Groups in BCMA

In BCMA V. 2.0, you can define two "Mail Groups" for notifying Pharmacy, IRM, and other internal staff about errors and Missing Dose Requests. This section describes how you can create mail groups, and the purpose of each group.

Creating Mail Groups for BCMA V. 2.0

Creating mail groups for BCMA V. 2.0 involves using the **V*IST*A** Mail Group *Enter/Edit* [XMUSER] option to set the TYPE field to PUBLIC. Once this task is accomplished, you can then use the Parameters Tab of the GUI BCMA Site Parameters application to define the mail groups that you created.

Mail Group Types in BCMA V. 2.0

This section describes the mail groups that you can define using the Parameters Tab of the GUI BCMA Site Parameters application.

- **Due List Error:** Generates an E-mail message for any medication order that BCMA V. 2.0 *cannot* resolve for the BCMA VDL placement, and sends it to the mail group members. An example might include no administration times entered for a Continuous order.
- **Missing Dose Notification:** Generates an E-mail message for any Missing Dose Request entered using the BCMA V. 2.0 CHUI or GUI menu options. The E-mail is sent to all members of the mail group, specifically Pharmacy, as a "fail safe" even if the designated Missing Dose printer is not functioning.

Security Features

Assigning Menus to Users

Use this section to assign menus to BCMA V. 2.0 CHUI and GUI users, if they have *not* already been assigned.

CHUI Version

Refer to this section for BCMA V. 2.0 CHUI menu assignments.

- **PSB MGR:** assign to a manager
- **PSB PHARMACY:** assign to all Inpatient Pharmacists
- **PSB NURSE:** assign to all nurses and other personnel who administer active medication orders

GUI Version

Refer to this section for BCMA V. 2.0 GUI menu assignments.

- **PSB GUI CONTEXT – USER:** assign to all nurses and other personnel who administer active medication orders

Allocating Security Keys to Users

Refer to this section to allocate the following security keys to appropriate site personnel.

- **PSB MANAGER:** designates the holder as a manager
- **PSB INSTRUCTOR:** designates the holder as a nursing instructor supervising student nurses
- **PSB STUDENT:** designates the holder as a student nurse, requiring that an instructor also sign on to BCMA V. 2.0 at the same time
- **PSB CPRS MED BUTTON:** designates the holder as a nurse who can document administered verbal- and phone-type STAT and NOW (One-Time) orders using the CPRS Med Order Button on the BCMA VDL

Establishing Electronic Signature Codes

You may establish Electronic Signatures Codes using the Kernel *Electronic Signature code Edit* [XUSESIG] option.

Note: For easier access by all users, this option is tied to the Common Options, under the *User's Toolbox* [XUSERTOOLS] submenu.

Glossary

Learning BCMA V. 2.0 Lingo (cont.)

The alphabetical listing, in this section, is designed to familiarize you with the many acronyms and terms used throughout this guide.

Example: Alphabetical Listing of BCMA V. 2.0 Acronyms and Terms

ACRONYM/TERM	DEFINITION
MAR	**M**edication **A**dministration **R**ecord. The traditional, handwritten record used for noting when a patient received a medication. BCMA V. 2.0 replaces this record with an MAH.
NOW Order	A medication order given ASAP to a patient, entered as a One-Time order by Providers and Pharmacists. This order type displays for a fixed length of time on the VDL, as defined by the order Start and Stop Date/Time.
Patient Transfer Notification	A message that displays when a patient's record is opened or the Unit Dose or IVP/IVPB Medication Tab is viewed for the first time. This message indicates that the patient has had a movement type (usually a transfer) within the site-definable parameter, and the last action for the medication occurred before the movement, but still within the defined timeframe.
PSB CPRS MED BUTTON	The name of the security "key" that must be assigned to nurses who document verbal- and phone-type STAT and NOW (One-Time) medication orders using the CPRS Med Order Button on the BCMA VDL.
PSB INSTRUCTOR	The name of the security "key" that must be assigned to nursing instructors, supervising nursing students, so they can access user options within BCMA V. 2.0.
PSB MANAGER	The name of the security "key" that must be assigned to managers so they can access the PSB Manager options within BCMA V. 2.0.
PSB STUDENT	The name of the security "key" that must be assigned to student nurses, being supervised by nursing instructors, so they can access user options within BCMA V. 2.0. This key requires that a nursing instructor sign on to BCMA V. 2.0.
Purge	To delete a set of data, and all references to the data.
RPC	**R**emote **P**rocedure **C**all. A procedure stored on the **V***IST***A** Server, which is executed to return data to the Client.
RPC Broker	A Client/Server System within the VA's Veterans Health Information Systems and Technology Architecture (**V***IST***A**) environment. It enables client applications to communicate and exchange data with M Servers.

Glossary

Learning BCMA V. 2.0 Lingo (cont.)

The alphabetical listing, in this section, is designed to familiarize you with the many acronyms and terms used throughout this guide.

Example: Alphabetical Listing of BCMA V. 2.0 Acronyms and Terms

ACRONYM/TERM	DEFINITION
Security Keys	Used to access specific options within BCMA V. 2.0 that are otherwise "locked" without the security key. Only users designated as "Holders" may access these options.
Server	An architecture in which one computer can get information from another. The Server, which can be anything from a personal computer to a mainframe, supplies the requested data or services to the Client.
STAT Order	A medication order given immediately to a patient, entered as a One-Time order by Providers and Pharmacists. This order type displays for a fixed length of time on the VDL, as defined by the order Start and Stop Date/Time.
VDL	**V**irtual **D**ue **L**ist. An on-line "list" used by clinicians when administering **active** medication orders (i.e., Unit Dose, IV Push, IV Piggyback, and large-volume IVs) to a patient. This is the Main Screen in BCMA V. 2.0. **Note:** This is called BCMA VDL in this guide to eliminate confusion with the **V***IST***A** Documentation Library (VDL) also mentioned in this guide.
VISTA	**V**eterans Health **I**nformation **S**ystems and **T**echnology **A**rchitecture.
Ward Stock	Unit Dose and IV medications that are "stocked" on an ongoing basis on wards and patient care areas. They are packaged in a ready-to-use form or compounded by the medication administrator.